Test Report issued under the responsibility of:

TÜVRheinland®

TEST REPORT
IEC 60950-22
Information technology equipment – Safety –
Part 22: Equipment to be installed outdoors

Report Number. .....:	28111296 003
Date of issue .....:	17/05/2018
Total number of pages.....	24
Name of Testing Laboratory preparing the Report.....:	TÜV RHEINLAND ITALIA S.r.l. Via Mattei, 3 – 20010 Pogliano Milanese (MI) - Italy
Applicant's name.....:	aesys
Address .....:	Aesys S.p.A Via Pastrengo 7C 24068 Seriate (Bg) - Italy
Test specification:	
Standard.....:	IEC 60950-22(ed.2)
Test procedure .....:	TÜV Scheme
Non-standard test method.....:	N/A
Test Report Form No.....:	IEC60950_22B
Test Report Form(s) Originator.....:	The Standards Institution of Israel
Master TRF.....:	Dated 2016-04

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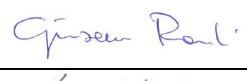
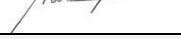
Test item description .....:	Monitor for public information indoor or semi outdoor area The “Compact TFT Family ” is a visualization system based on 32”/42” Matrix modules and an Industrial Embedded pc
Trade Mark .....:	aesys
Manufacturer.....:	Aesys S.p.A Via Pastrengo 7C 24068 Seriate (Bg) - Italy
Model/Type reference .....:	993201600702_COMPACT 42” 500 M J1900 ACL MD SCL ** 993201600101_COMPACT 32” 500 M J1900 ACL MD SCL 256GB ** 993201600102_COMPACT 32” 500M CCTV *
Ratings .....:	* 230V, 50 Hz; **110/230V 50/60Hz

Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):		
☐ **Testing Laboratory:**		
Testing location/ address	**TÜV RHEINLAND ITALIA S.r.l.** Via Mattei, 3 – 20010 Pogliano Milanese (MI) - Italy	
☐ **Associated Testing Laboratory:**		
Testing location/ address		
Tested by (name, function, signature)		
Approved by (name, function, signature) ..		
☐ **Testing procedure: CTF Stage 1:**		
Testing location/ address	**TÜV RHEINLAND ITALIA S.r.l.** Via Mattei, 3 – 20010 Pogliano Milanese (MI) - Italy	
Tested by (name, function, signature)	Giuseppe Ronchi /Tester	
Approved by (name, function, signature) ..	Giovanni Molteni /Reviewer	
☐ **Testing procedure: CTF Stage 2:**		
Testing location/ address		
Tested by (name + signature)		
Witnessed by (name, function, signature).		
Approved by (name, function, signature) ..		
☐ **Testing procedure: CTF Stage 3:**		
☐ **Testing procedure: CTF Stage 4:**		
Testing location/ address		
Tested by (name, function, signature)		
Witnessed by (name, function, signature).		
Approved by (name, function, signature) ..		
Supervised by (name, function, signature)		

List of Attachments (including a total number of pages in each attachment):

Annex 1 declaration of conformity of gasket
Annex 2 declaration of conformity of powder coating

Summary of testing:

Tests performed (name of test and test clause):	**Testing location:**
All relevant tests The phase of sampling / collection of equipment under test is carried out by the customer.(*Sampling performed by applicant*) The uncertainties for the tests and measurements are those listed in TÜV RHEINLAND ITALIA Operational Instruction IO_BSP_239_028_REV.01 Equipment used for testing is recorded and saved into the company archive instruments 28111296_002_INS. It will be made available on request	**TÜV RHEINLAND ITALIA S.r.l.** Via Mattei, 3 – 20010 Pogliano Milanese (MI) - Italy

Summary of compliance with National Differences (List of countries addressed):
EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES

Copy of marking plate:

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.

RELEASE CONTROL RECORD		
TEST REPORT NUMBER	REASON OF CHANGE	DATE OF ISSUE
28111296 002	Original release	09/05/2018
28111296 003	Editorial change: correct description, model, product type.	17/05/2018

This test report annuls and replaces the previous one

IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict

Test item particulars ..... :	
Temperature range ..... :	
Overvoltage category ..... :	☐ OVC I ☒ OVC II ☐ OVC III ☐ OVC IV
IP protection class ..... :	
Possible test case verdicts:	
- test case does not apply to the test object .....:	N/A
- test object does meet the requirement .....:	P (Pass)
- test object does not meet the requirement .....:	F (Fail)
- test object does not checked .....:	N.C. (as required by applicant)
Testing .....:	
Date of receipt of test item .....:	04/01/2018 (storage180002 - sampling performed by manufacturer)
Date (s) of performance of tests .....:	09/05/2018
General remarks:	
"(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report. **Throughout this report a ☒ comma / ☐ point is used as the decimal separator.** **This Test Report Form is intended for the investigation of safety of equipment to be installed outdoors in accordance with IEC 60950-22. It can only be used together with the IEC 60950-1 requirements.**	
Name and address of factory (ies) .....:	Aesys S.p.A Via Pastrengo 7C 24068 Seriate (Bg) - Italy
General product information: **Model Differences 42":** Compact 42" 500 **z** J1900 **yx** - **z** can be M or L and indicates the front protection with Monolithic glass from 6mm or 4mm or 3 + 3mm Laminate - **y** can be empty or MD, ACL, SCL or a combination of MD, ACL, SCL and SSD (indicate respectively presence of Media converter, Accelerometer, Heating (PTC) system) - **x** can be empty or if there is a 2.5 "external SSD drive, indicate the capacity of the SSD (eg 256GB, etc)	

IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict

COMPACT 42"			
Codice AESYS	Descrizione	Disegno tecnico	Schema elettrico
99320**00***	Compact 42" 500 **z** J1900 **y x**	73 171 3* **(4 02)	EP_RLW_TFT_00028_01

* it is a progressive number.

Model Differences 32':

Basic model:

Compact 32" 500 **z** J1900 **yx**

- **z** can be M or L and indicates the front protection with Monolithic glass from 6mm or 4mm or 3 + 3mm Laminate
- **y** can be empty or MD, ACL, SCL or a combination of MD, ACL, SCL and SSD (indicate respectively presence of Media converter, Accelerometer, Heating (PTC) system)
- **x** can be empty or if there is a 2.5 "external SSD drive, indicate the capacity of the SSD (eg 256GB, etc)

COMPACT 32"			
Codice AESYS	Descrizione	Disegno tecnico	Schema elettrico
99320**00***	Compact 32" 500 **z** J1900 **y x**	73 171 3* **(4 02)	EP_RLW_TFT_00029_02

* it is a progressive number.

Derived model:

COMPACT 32 500 M CCTV the difference between basic model COMPACT 32 500 M was only the added of CCTV board and removing PC J1900.

The conformity was evaluated with partial tests in this report.

IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict
4	**CONDITIONS FOR OUTDOOR EQUIPMENT**		P
4.1	**Ambient air temperature**		P
	Suitability for use at any temperature in the range specified by the manufacturer. If not specified by the manufacturer, the range is taken as -33°C to +40°C	Indicated 0÷45 ° C	P
4.2	**Mains supply**		P
4.2.1	General		P
	Suitability for the highest mains transient voltage expected in the installation location		P
	Components within outdoor equipment that reduce mains transient voltage or the prospective fault current comply with IEC 61643-series		P
4.2.2	Mains transient voltage on AC mains supply		P
4.2.3	Mains transient voltage on DC mains supply		N
4.3	**Rise of earth potential**		P
	Special earthing conditions		P
	Reference to installation instructions .....:		P
5	**MARKING AND INSTRUCTIONS**		P
	Special installation features for protection from conditions in the outdoor location (see 1.7.2 of IEC 60950-1:2005)		P
	outdoor enclosure classification according to IEC 60529 (IP Code)	Not indicated	P
6	**PROTECTION FROM ELECTRICAL SHOCK IN AN OUTDOOR LOCATION**		P
6.1	**Voltage limits of user-accessible parts in outdoor locations** (2.2.2 and 2.2.3 of IEC 60950-1:2005/AMD2:2013 with voltage limits of IEC60950-22)		P
	Voltages under normal conditions (V) .....:	Accesiblevoltages in normal conditions do not exceed 21,2V pk or 30 Vdc	P
	Voltages under fault conditions (V) .....:	Accessible voltages in fault condition do not exceed the limit for wet locations	P
6.2	**Limited current circuits in outdoor locations**		P
	The requirements of 2.4 of IEC60950-1:2005/ AMD1:2009/AMD2:2013 apply without change		P
6.3	**Protection for socket-outlet in outdoor locations**		P

IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict
	Use of residual current protective device (RCD) with rated residual operating current not exceeding 30 mA in the mains supply to socket-outlets intended for general use and with a rated current not exceeding 20 A.		P
	RCD is an integral part of the equipment		N/A
	RCD is part of the building installation (installation instructions)		P
7	**WIRING TERMINALS FOR CONNECTION OF EXTERNAL CONDUCTORS**		P
	The mains supply terminations powered via the normal building installation wiring are as specified in 3.3 of IEC 60950-1:2005/AMD2:2013		P
	The mains supply terminations powered directly from the mains distribution system are as specified in IEC 60364		N/A
8	**CONSTRUCTION REQUIREMENTS FOR OURDOOR ENCLOSURES**		P
8.1	**General**		P
	Protection against corrosion by use of suitable materials or by application of a protective coating	Axalta Coating System AE03054900520	P
	Parts serving as a functional part of an outdoor enclosure (e.g., dials, connectors, etc.) comply with the same environmental protection requirements as for the outdoor enclosure		P
	Use of outdoor enclosure to carry current during normal operation		P
	Connection of a conductive part of an outdoor enclosure to protective earth for carrying fault currents (see 2.6 of IEC60950-1:2005/ AMD1:2009/AMD2:2013 and 8.3 of this standard)	(see separate test report IEC 60950-1 and 8.3 of this report)	P
8.2	**Resistance to ultra-violet radiation**		P
	Resistance of non-metallic parts of an outdoor enclosure to degradation by ultra-violet (UV) radiation	See report annex 1	P
	Parts providing mechanical support:		P
	Tensile strength test (ISO 527)	(see appended table 8.2a)	P
	Flexural strength test (ISO 178)	(see appended table 8.2b)	P
	Parts providing impact resistance:		P
	Charpy impact test (ISO 179)	(see appended tables 8.2c and 8.2.d)	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Izod impact test (ISO 180)	(see appended tables 8.2e and 8.2.f)	N/A
	Tensile impact test (ISO 8256)	(see appended tables 8.2g and 8.2.h)	N/A
	All parts:		N/A
	Flammability classification (1.2.12 and annex A of IEC 60950-1:2005)	(see separate test report IEC 60950-1) Fully metallic enclosure	N/A
8.3	**Resistance to corrosion**		N.C.
8.3.1	General	See Annex 1	N.C.
	Resistance of metallic parts of an outdoor enclosure to the effects of water-borne contaminants	See Annex 1	N.C.
	Alternate method for 8.3.2-8.3.4 (IEC 61587-1)	See Annex 1	N.C.
8.3.2	Test apparatus	See Annex 1	N.C.
	Salt-spray test (IEC 60068-2-11)	See Annex 1	N.C.
	Test in a water-saturated sulphur dioxide atmosphere (water-saturated sulphur dioxide atmosphere as described in Annex A; chamber as described in ISO 3231)	See Annex 1	N.C.
8.3.3	Test procedure		N.C.
	Alternate test procedure		N.C.
8.3.4	Compliance criteria:		N.C.
	No rust other than surface corrosion of the protective coating; no cracking or other deterioration that will jeopardize the safety aspects as follows:		N.C.
	– continued protection against access to hazardous parts, including after mechanical strength tests; and		N.C.
	– continued protection against ingress of dust and water; and		N.C.
	– continued provision of earth continuity		NC
8.4	**Bottoms of fire enclosures**		P
	Comply with 4.6.2 of IEC 60950-1:2005		P
	Bottom of fire enclosure of outdoor equipment mounted directly and permanently on a non-combustible surface (e.g., concrete or metal)	metal	P
8.5	**Gaskets**		P
8.5.1	General	See annex 2	P
8.5.2	Oil resistance		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
8.5.3	Securing means	Gasket secured by adhesive	P
9	**PROTECTION OF EQUIPMENT WITHIN AN OUTDOOR ENCLOSURE**		P
9.1	**Protection from moisture**		P
	Adequate protection from the effect of moisture on the enclosed equipment (see Table 2)		P
9.2	**Protection from plants and vermin**		
	Adequate protection if entry by plants and vermin is a consideration	No holes	P
9.3	**Protection from excessive dust**		P
9.3.1	General		P
	Adequate protection against the ingress of the dust through the use of an appropriately rated IP5X or IP6X enclosure, or equivalent	IP5X	P
9.3.2	IP5X equipment		P
9.3.3	IP6X equipment		N/A
10	**MECHANICAL STRENGTH OF ENCLOSURES**		P
10.1	**General**		P
	Adequate mechanical strength and protection against access to energized parts and other hazards within the equipment throughout the intended ambient operating range		P
10.2	**Impact test (4.2.5 of IEC 60950-1)**		P
	Low temperature conditioning for polymeric enclosures	Metallic enclosure	N/A
	Compliance criteria:		N/A
	- after test the level of protection remains in accordance with 9.1of this standard		P
	- after test the requirements of 4.2.1 of IEC 60950-1: 2005/ AMD1:2009/AMD2:2013 are met		P
11	**OUTDOOR EQUIPMENT CONTAINING VENTED BATTERIES**		N/A
11.1	**Risk of explosion from lead acid, NiCd and NiMH batteries**		N/A
	Adequate ventilation in the compartment housing a valve regulated or vented battery, where gassing is possible during normal usage or over-charging		N/A
	Protection against the risk of ignition of local concentrations of hydrogen and oxygen in a compartment containing both a battery and electrical components		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Construction of the ventilation system to ensure explosive gases venting in case of any potential fault, including distortion of the battery cases due to overheating or thermal runaway		N/A
	Ventilation tubes used for conducting explosive gas from the battery cases to the outside air		N/A
	Adequate ventilation under single-fault failure conditions in case of mechanical or forced-air ventilation		N/A
	Enclosures with mechanical or electromechanical dampers		N/A
11.2	**Ventilation preventing an explosive gas concentration**		N/A
	Comply with M.7 of IEC 62368-1:2014		N/A
11.3	**Ventilation test**		N/A
	Measured hydrogen gas concentration (% by volume) .....:		—
	Max. allowed gas concentration for the mixture location in proximity to an ignition source (% by volume) .....:	≤ 1% by volume	—
	Max. allowed gas concentration for the mixture location not in proximity to an ignition source (% by volume) .....:	≤ 2% by volume	—
	Overcharging of rechargeable battery (see 4.3.8 of IEC 60950-1:2005/AMD2:2013)	(see separate test report IEC 60950-1)	N/A
A	**ANNEX A, WATER-SATURATED SULPHUR DIOXIDE ATMOSPHERE (see 8.3.2 and 8.3.3)**		N.C.
	Test chamber .....:		N.C.
	Test method .....:		N.C.
B	**ANNEX B, WATER SPRAY TEST (see 9.1)**		N.C.
	Test apparatus .....:		N.C.
	Test method .....:		N.C.
C	**ANNEX C, ULTRAVIOLET LIGHT CONDITIONING TEST (see 8.2)**		N/A
C.1	Test apparatus .....:		N/A
C.2	Mounting of test samples.....:		N/A
C.3	Carbon-arc light-exposure apparatus.....:		N/A
C.4	Xenon-arc light-exposure apparatus .....:		N/A
D	**ANNEX D, GASKET TESTS (see 8.5)**		P
D.1	Gasket tests	See manufacturer declaration	P

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Clause	Requirement + Test	Result - Remark	Verdict
D.2	Tensile strength and elongation tests (for gaskets that can stretch)		N/A
	Tensile strength (%) .....:		N/A
	Elongation (%) .....:		N/A
	Visible deterioration, deformation, melting, cracking or hardening of the material.....:		N/A
D.3	Compression test (for gaskets with closed cell construction)		N/A
	Initial thickness of the specimen (mm) .....:		N/A
	Thickness of the specimen after test a) (mm), compression set after test a) (%).....:		N/A
	Thickness of the specimen after test b) (mm), compression set after test b) (%).....:		N/A
	Thickness of the specimen after test c) (mm), compression set after test c) (%).....:		N/A
	Visible cracks or deterioration .....:		N/A
D.4	Oil immersion test		N/A
	Swelling (%) .....:		N/A
	Shrinking (%).....:		N/A
E	**ANNEX E, RATIONALE**		—
E.1	General		—
E.2	Electric shock		—
E.3	Energy related hazards		—
E.4	Fire		—
E.5	Mechanical hazards		—
E.6	Heat related hazards		—
E.7	Radiation		—
E.8	Chemical hazards		—
E.9	Biological hazards		—
E.10	Explosion hazards		—

IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict

8.2	**TABLE: Resistance to ultra-violet radiation**	
8.2a)	**Tensile strength test (ISO 527) See annex 1**	N.C.
Material identification (manufacturer, type designation) .....:		—
Shape and dimensions of test samples.....:		—
Conditioning for Set 1 of samples .....:		—
Conditioning for Set 2 of samples (including Annex C) .....:		—
Test conditions (T °C, RH %) .....:		—

Set 1 (without Annex C conditioning)		Set 2 (after Annex C conditioning)	
Test sample #	Tensile strength (MPa)	Test sample #	Tensile strength (MPa)

Arithmetic mean for Set 1 (MPa) ..... :	
Arithmetic mean for Set 2 (MPa) ..... :	
Retention (%)..... :	

Supplementary information:

IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict

8.2	**TABLE: Resistance to ultra-violet radiation**	
8.2b)	**Flexural strength test (ISO 178) See annex 1**	N.C.
Material identification (manufacturer, type designation) ..... :		—
Shape and dimensions of test samples..... :		—
Conditioning for Set 1 of samples..... :		—
Conditioning for Set 2 of samples (including Annex C) ..... :		—
Test conditions (T °C, RH %)..... :		—

Set 1 (without Annex C conditioning)		Set 2 (after Annex C conditioning)	
Test sample #	Flexural strength (MPa)	Test sample #	Flexural strength (MPa)

Arithmetic mean for Set 1 (MPa) .....:	
Arithmetic mean for Set 2 (MPa) .....:	
Retention (%).....:	
Supplementary information:	

IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict

8.2	**TABLE: Resistance to ultra-violet radiation**	
8.2c)	**Charpy impact test (ISO 179) – unnotched See annex 1**	N.C.
Material identification (manufacturer, type designation) ..... :		—
Shape and dimensions of test samples..... :		—
Conditioning for Set 1 of samples..... :		—
Conditioning for Set 2 of samples (including Annex C) ..... :		—
Test method (according to Tables 2 and 3 of ISO 179) ..... :		—
Test conditions (T °C, RH %)..... :		—

Set 1 (without Annex C conditioning)		Set 2 (after Annex C conditioning)	
Test sample #	Charpy impact strength (kJ/m^2)	Test sample #	Charpy impact strength (kJ/m^2)

Arithmetic mean for Set 1 (kJ/m^2)..... :	
Arithmetic mean for Set 2 (kJ/m^2)..... :	
Retention (%)..... :	

Supplementary information:

IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict

8.2	**TABLE: Resistance to ultra-violet radiation**	
8.2d)	**Charpy impact test (ISO 179) - notched**	N.C.
Material identification (manufacturer, type designation) .....:		—
Shape and dimensions of test samples.....:		—
Conditioning for Set 1 of samples.....:		—
Conditioning for Set 2 of samples (including Annex C) .....:		—
Test method (according to Tables 2 and 3 of ISO 179) .....:		—
Test conditions (T °C, RH %).....:		—

Set 1 (without Annex C conditioning)		Set 2 (after Annex C conditioning)	
Test sample #	Charpy impact strength (kJ/m^2)	Test sample #	Charpy impact strength (kJ/m^2)

Arithmetic mean for Set 1 (kJ/m^2).....:	
Arithmetic mean for Set 2 (kJ/m^2).....:	
Retention (%).....:	

Supplementary information:

IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict

8.2	**TABLE: Resistance to ultra-violet radiation**	
8.2e)	**Izod impact test (ISO 180) - unnotched**	N.C.
Material identification (manufacturer, type designation) .....:		—
Shape and dimensions of test samples.....:		—
Conditioning for Set 1 of samples.....:		—
Conditioning for Set 2 of samples (including Annex C) .....:		—
Test method (according to Table 1 of ISO 180) .....:		—
Test conditions (T °C, RH %).....:		—

Set 1 (without Annex C conditioning)		Set 2 (after Annex C conditioning)	
Test sample #	Izod impact strength (kJ/m^2)	Test sample #	Izod impact strength (kJ/m^2)

Arithmetic mean for Set 1 (kJ/m^2).....:	
Arithmetic mean for Set 2 (kJ/m^2).....:	
Retention (%).....:	

Supplementary information:

IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict

8.2	**TABLE: Resistance to ultra-violet radiation**	
8.2f)	**Izod impact test (ISO 180) - notched**	N.C.
Material identification (manufacturer, type designation) ..... :		—
Shape and dimensions of test samples ..... :		—
Conditioning for Set 1 of samples ..... :		—
Conditioning for Set 2 of samples (including Annex C) ..... :		—
Test method (according to Table 1 of ISO 180) ..... :		—
Test conditions (T °C, RH %) ..... :		—

Set 1 (without Annex C conditioning)		Set 2 (after Annex C conditioning)	
Test sample #	Izod impact strength (kJ/m^2)	Test sample #	Izod impact strength (kJ/m^2)

Arithmetic mean for Set 1 (kJ/m^2) ..... :	
Arithmetic mean for Set 2 (kJ/m^2) ..... :	
Retention (%) ..... :	
Supplementary information:	

IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict

8.2	**TABLE: Resistance to ultra-violet radiation**	
8.2g)	**Tensile impact test (ISO 8256) - unnotched**	N.C.
Material identification (manufacturer, type designation) .....:		—
Shape and dimensions of test samples.....:		—
Conditioning for Set 1 of samples.....:		—
Conditioning for Set 2 of samples (including Annex C) .....:		—
Test method (A or B)		—
Test conditions (T °C, RH %).....:		—

Set 1 (without Annex C conditioning)		Set 2 (after Annex C conditioning)	
Test sample #	Tensile impact strength (kJ/m^2)	Test sample #	Tensile impact strength (kJ/m^2)

Arithmetic mean for Set 1 (kJ/m^2).....:	
Arithmetic mean for Set 2 (kJ/m^2).....:	
Retention (%).....:	

Supplementary information:

IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict

8.2	**TABLE: Resistance to ultra-violet radiation**	
8.2h)	**Tensile impact test (ISO 8256) - notched**	N.C.
Material identification (manufacturer, type designation) .....:		—
Shape and dimensions of test samples.....:		—
Conditioning for Set 1 of samples.....:		—
Conditioning for Set 2 of samples (including Annex C) .....:		—
Test method (A or B)		—
Test conditions (T °C, RH %).....:		—

Set 1 (without Annex C conditioning)		Set 2 (after Annex C conditioning)	
Test sample #	Tensile impact strength (kJ/m^2)	Test sample #	Tensile impact strength (kJ/m^2)

Arithmetic mean for Set 1 (kJ/m^2).....:	
Arithmetic mean for Set 2 (kJ/m^2).....:	
Retention (%).....:	

Supplementary information:

IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict

	TABLE: Critical components information				P
Object / part No.	**Manufacturer/ trademark**	**Type / model**	**Technical data**	**Standard**	**Mark(s) of conformity[1)]**
(see separate test report IEC 60950-1)					
Gasket	Sonderhoff	Fermapor K 31 A9160 VPA			Checked inside
Powder Coating	Axalta Coating System	AE03054900520			EN 45545
Supplementary information: [1)] Provided evidence ensures the agreed level of compliance. See OD-CB2039.					

IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict

Picture of IP X5 testing

Picture_1

Picture_2

ANNEX 1

sonderhoff	Testreport	Author: Jan-René Klöver
		Date: 26.07.2017
Customer: Aesys S.p.A		Page 1

Dear Sir or Madam,

Hereby we declare that the gasket material FERMAPOR K31-A-9160-VP4 / K31-B-81 in a mixing ratio of 4:1, manufactured by Sonderhoff chemicals GmbH, was tested according to EN60950-22 Clause 8.5 (temperature ageing for 168h at 70°C).

The results are as followed:

	Standard	Initial value	After 168h at 70°C
Tensile Strength*	DIN EN 1798	390 kPa	382 kPa
Elongation at Break*	DIN EN 1798	210 %	214 %

*** gasket stripes 8 x 16 mm"**

According to the results, the Tensile Strength dropped to 98% of its initial value while the Elongation at break rose to 102% of its initial value.

If you have further questions, don't hesitate to contact us again.

i.A. Jan-René Klöver
(Customer application technician)

Important notes regarding the suitability of products

The description of the possible fields of use of our products as well as the technical data and values only have a general character and does not mean that a certain product can be used under all conditions in the respective field of use. In this respect, the stated field of use is not a binding specification or usage provision. Due to the great number of environment variables and their influences (e.g. temperature, test specimens, size, interaction with substrates, influence of machines, or the like) you as our customer must check whether the product is suitable for your specific field of use. We will be pleased to assist and advise you in this respect.

Sonderhoff Chemicals GmbH
Richard-Byrd-Straße 26
50829 Köln • Deutschland

Geschäftsführer
Axel Erken (Vorsitzender),
Uwe Beckermann, Kai Ethner
Registergericht Köln, HRB 36059

ANNEX 2

Axalta Coating Systems Germany GmbH
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AXALTA

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Direct fax
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Our ref
Unser Zeichen

Your ref Ihr Zeichen	your letter dated Ihre Nachricht vom	Date Datum	02.10.2015

Conformity of Alesta® powder coatings relating to the fire protection standard DIN EN 45545.

Axalta Coating Systems herewith confirms that all Alesta® powder coatings materials, which are manufactured and placed on the market in the European Economic Area meet the DIN EN 45545 standard referring to the test criteria R1 and R7.

These are the series Alesta® AE, SD, EP, IE, AG, EE, HR, PU, ZF and ZN.

Certificate

By signing this document we confirm, that all powder coatings meet the DIN EN 45545 standard due to passing R1 and R7 examination.

Signed by:
Jörg Dederichs, Axalta Coating Systems Germany Product Management DACH and Central Europe

Signature

Dederichs

(Stamp)

Diese Information basiert auf unserem derzeitigen Kenntnisstand. Obgleich die Information in gutem Glauben weiter geleitet wird, kann hinsichtlich Vollständigkeit und Genauigkeit keine Gewähr übernommen werden. Für Schäden jeglicher Art, die aus der Verwendung dieser Information oder im Vertrauen auf diese Information entstehen, wird keine Haftung übernommen

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Holger Lassen, Dr. Matthias Vogt
Vorsitzender des Aufsichtsrates: Dr. Joseph Pearson